

MSAT DATAF Carrier EOC Link Budget			
PARAMETER	UNITS	FORWARD (Hub to User)	RETURN (User to Hub)
Noise Bandwidth	kHz	300	300
Boltzmann's constant	dBW/Hz:°K	-228.6	-228.6
UPLINK		Clear	Clear
Frequency	GHz	13	1.64
Earth Station EIRP	dBW	65.5	23.9
Body Shielding Loss	dB	x	0
Polarization Loss	dB	x	-0.5
Free Space Loss	dB	-206.7	-188.8
Uplink Fade	dB	0	0
Satellite Antenna Gain, EOC	dBi	29	29
Received Carrier Power	dBW	-112.2	-136.4
Satellite G/T	dB/°K	-1	5
Intersystem Interference Allowance	dB	0.5	1
C/No	dB·Hz	85.9	67.2
C/Imo	dB·Hz	76.8	78.8
Satellite C/(No+Io)	dB·Hz	76.3	66.9
DOWNLINK			
Frequency	GHz	1.55	11
Satellite Active Gain	dB	123.3	122
Satellite Antenna Gain, EOC	dBi	29	29
Satellite EOC EIRP	dBW	40.1	14.6
Free Space Loss	dB	-188.5	-205.2
Downlink Fade	dB	x	0
Earth Station G/T	dB/°K	-10	36.5
Interference Allowance	dB	1	0.5
C/No	dB·Hz	69.2	74
LINK			
Link C/(No+Io)	dB·Hz	68.4	66.1
Required C/No	dB-Hz	58.8	58.8
Margin	dB	9.6	7.3